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036101
SHAUGHNESSEY NO.

REVIEW NO.

EEB REVIEW

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FILE OR REG. NO 87-NC-02

PETITION OR EXP. NO.

DATE OF SUBMISSION 12-22-86

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RD ACTION CODE/TYPE OF REVIEW 515

TYPE PRODUCT(S) : I, D, H, F, N, R, S Herbicide

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. J. Housenger (41)

PRODUCT NAME(S) Treflan EC

COMPANY NAME North Carolina Dept. of Agriculture

SUBMISSION PURPOSE Proposed Section 18 for use on Evening

Primrose in North Carolina

SHAUGHNESSEY NO. CHEMICAL, & FORMULATION % A.I.

036101 a,a,a-trifluoro-2,6-dinitro- 44.5%

N,N-dipropyl-p-toluidine

EEB Review

Trifluralin

100 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

The State of North Carolina is requesting an emergency exemption (Section 18) for the use of trifluralin on evening primrose during 1987. The herbicide is needed to control annual grasses and broadleaf weeds. No data were submitted with this request.

100.2 Formulation Information

Treflan 4 EC :

Trifluralin*	44.5%
Inert ingredients	55.5%

* a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine

100.3 Application Methods, Directions, Rates

The exemption is needed statewide for 1987. The specific site of application is in fields of direct seeded and transplanted evening primrose. Treflan must be preplant incorporated with a rototiller or tandem disk to a depth of 2 to 3 inches within 8 hours of application. Application will be with ground-driven equipment. Application rates will range from 0.5 to 1.0 lbs active ingredient per acre (1 to 2 pints of Treflan 4 EC herbicide). Two thousand acres will be treated at an average rate of 0.75 lb a.i. (1.5 pints/acre Treflan 4 EC). A total of 1500 lb of active ingredient will be used (375 gal of Treflan 4 EC). No special precautions or handling instructions, other than those already on the label, will be required. The time frame for use is February 1 to May 1 for transplanted evening primrose, and August 1 to November 1 for direct seeded evening primrose.

100.4 Target Organisms

Target organisms are annual broadleaf weeds and grasses.

100.5 Precautionary Labeling

Direct contamination of any body of water with this emulsifiable concentrate may kill fish and other aquatic organisms. Do not contaminate any body of water by direct application, cleaning of equipment, or disposal of wastes.

101 Hazard Assessment

101.1 Discussion

The proposed emergency exemption would allow the use of Treflan 4 EC on 2000 acres of evening primrose in North Carolina. Application rate is from 0.5 to 1.0 lb a.i. per acre, to be preplant incorporated within 8 hours of application.

101.2 Likelihood of Adverse Effects on Nontarget Organisms

Data from previous EEB reviews indicate that trifluralin is practically nontoxic to birds and honey bees. In view of the fact that there will be only one application, with the pesticide being incorporated into the soil, hazard to nontarget terrestrial organisms is not anticipated.

Data from EEB reviews indicate that trifluralin is highly toxic to freshwater fish and aquatic invertebrates. However, several factors act to mitigate the potential hazard from the proposed use:

- 1) use is restricted to one application per year;
- 2) material will be soil incorporated within 8 hours of application;
- 3) the chemical binds to soil and has low mobility; and,
- 4) maximum acreage to be treated is 2000 acres.

In view of these factors, significant hazard to aquatic organisms is not expected from the proposed use.

101.3 Endangered Species Considerations

Through telephone contact with the North Carolina Dept. of Agriculture (James W. Burnette, Jr.; 919/733-3556), EEB ascertained that evening primrose was grown in the following counties in 1986: Harnett, Cumberland, Sampson, Greene, Johnston, Wilson, Lenoir, Wake, Nash, Jones, Pitt, Onslow, Duplin, and Wayne. Review of EEB's endangered species files indicated only one species of concern in the above counties - rough-leaved loosestrife (*Lysimachia asperulaefolia*) (Primulaceae) in Cumberland County. Through telephone conversation with Ms. Julie Moore, a botanist with the North Carolina State Natural Heritage Program (919/733-7701), it was determined that the habitat of rough-leaved loosestrife is not subject to impact from agricultural activities. Thus, adverse effects on endangered/threatened species are not anticipated from the proposed use.

Conclusions

The Ecological Effects Branch has completed review of the proposed emergency exemption for the use of trifluralin on evening primrose in North Carolina. Based on information from previous Branch reviews, in conjunction with information from various state agencies in North Carolina, EEB concludes that use under the proposed Section 18 is not expected to result in adverse effects on nontarget organisms.

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